

# A TOOTH CONTOUR STRUCTURE FOR LARGE SPROCKET SET OF BICYCLE

## Abstract

A tooth contour structure for large sprocket set of bicycle, at least three  
5 characteristic teeth are arranged on the larger sprocket of two adjacent  
sprockets for the large sprocket set, wherein the right side of the first  
characteristic tooth has a curve surface and a cutting portion fulfilled with a  
moving path for a chain, and between the first characteristic tooth and  
10 second characteristic tooth a tooth valley bottom edge is a projection butting  
surface formed by stamping and biased toward the smaller sprocket, and the  
arc of the top edge for the butting surface is formed according to the path  
and curvature of the upper chain, and the top edge is also formed into a slant  
angle, and a recession is arranged below the first characteristic tooth, not  
15 only the process is easy; the manufacturing cost is low; the chaining-up path  
is steady and smooth; the fixed-point shifting can be proceeded; but also the  
shifting efficiency is raised; the reliability is increased; the usage life is  
prolonged; and the running noise is lowered.